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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/750,888	12/28/2000	Janne Mikael Haavisto	442-010006-US(PAR)	8460

7590 05/05/2005

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EXAMINER	
MISLEH, JUSTIN P	
ART UNIT	PAPER NUMBER
2612	

DATE MAILED: 05/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/750,888	HAAVISTO, JANNE MIKAEL	
	Examiner	Art Unit	
	Justin P. Misleh	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 October 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 - 29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 - 29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 December 2000* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 25 October 2004 have been fully considered but they are not persuasive.

2. The Applicant argues that Lebens et al. does not teach or suggest in any way "that an LED having a narrow-band response to incident light can be used to measure light intensity."

3. The Examiner disagrees with Applicant's position for the following reasons:

The claim language recites, therein, "wherein said white balance measurement unit comprises at least one LED that has a response to a predetermined frequency band corresponding to one of said light components and which is arranged to generate an electronic measurement signal representative of the intensity of said one of said light components."

However, the claim language is written broadly enough such that it requires that the white balance measure unit comprises: 1. At least one LED that has a response to a predetermined frequency band corresponding to one of said light components AND 2. Is arranged to generate an electronic measurement signal representative of the intensity of said one of said light components.

The claim language does not specifically require "that an LED having a narrow-band response to incident light can be used to measure light intensity" as implied by Applicant. Furthermore, the Examiner interprets "has a response" as equivalent to "has an output." Therefore, since the LED's in Lebens et al. are used as a source of illumination, the LED's in

fact have a response to a predetermined frequency band corresponding to one of said light components.

Specification

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

5. The abstract of the disclosure is objected to because of an inconsistency.

On the last line of the abstract, "Fig. 2" is randomly recited and should be deleted.

Correction is required. See MPEP § 608.01(b).

Drawings

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 18, 24B, 26, SW1, SW2, 32, 60, 24G, 24R, 56, 58, 30, VD, 28, and 12 (figure 1).

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the Examiner does not

accept the changes, the Applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

7. **Claims 21 – 28** are objected to because of the following informalities: incorrect numbering of claims.

New Claims 21 – 28 were submitted with the following respective claim numbers: 21, 21, and 22 – 28. For the purposes of examination, the Examiner has identified New Claims 21 – 28 as Claims 21 – 29, respectively. In the rejections below, the format is "for Claim X (Y)" with X being the number assigned by the Examiner and Y being the number assigned by Applicant.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. **Claims 1 – 10, 12 – 20, and 23 – 29** are rejected under 35 U.S.C. 102(e) as being anticipated by Lebens et al.

10. For **Claim 1**, Lebens et al. disclose, as shown in figures 5 – 7 and as stated in columns 5 (lines 52 – 67), 9 (lines 52 – 66), 11 (line 32) – 12 (line 24), and 15 (lines 21 – 32), a white

balance measurement unit (feedback circuit 160) for measuring the respective intensities of at least two light components ("color balance as measured by feedback circuit 160"), wherein said white balance measurement unit (160) comprises: 1. At least one LED (LED's 150) that has a response to a predetermined frequency band corresponding to one of said light components ("red, green, and blue") AND 2. Which is arranged to generate an electronic measurement signal representative of the intensity of said one of said light components (The "electronic measurement signal" is provided to the control circuit 134 from the feedback circuit 160 to maintain color balance – see figure 5).

11. As for **Claim 2**, Lebens et al. disclose, as shown in figures 5 – 7 and as stated in columns 5 (lines 52 – 67), 9 (lines 52 – 66), 11 (line 32) – 12 (line 24), and 15 (lines 21 – 32), the unit (160) comprising: 1. At least one dedicated LED (LED's 150) for each one of said at least two light components ("red, green, and blue"), each dedicated LED (150) having a response to a predetermined frequency band corresponding to one of said light components ("red, green, and blue") AND 2. Being arranged to generate an electronic measurement signal representative of the intensity of said one of said light components (The "electronic measurement signal" is provided to the control circuit 134 from the feedback circuit 160 to maintain color balance – see figure 5).

12. For **Claims 3 and 14**, Lebens et al. disclose, as shown in figures 5 – 11 and as stated in columns 5 (lines 52 – 67), 9 (lines 52 – 66), 11 (line 32) – 12 (line 24), and 15 (lines 21 – 32), a white balance adjustment device (500 – see figure 5), wherein the device (500) comprises a white balance measurement unit (feedback circuit 160) for measuring the respective intensities of at least two light components ("color balance as measured by feedback circuit 160"), wherein said white balance measurement unit (160) comprises: 1. At least one LED (LED's 150) that has

a response to a predetermined frequency band corresponding to one of said light components ("red, green, and blue") AND 2. Which is arranged to generate an electronic measurement signal representative of the intensity of said one of said light components (The "electronic measurement signal" is provided to the control circuit 134 from the feedback circuit 160 to maintain color balance – see figure 5).

13. As for **Claim 4**, Lebens et al. disclose, as shown in figures 5 and 10, the device (500) comprising:

an input for receiving at least two electronic color signals each corresponding to one of said light components (video imager circuit 570 and CCD camera 14), and

an adjusting means for adjusting proportional strength of said color signals corresponding to said electronic measurement signals (image processor 15 and column 14, line 59 – column 15, line 12).

14. As for **Claim 5**, Lebens et al. disclose, as stated in columns 9 (lines 24 – 51), 10 (line 65) – 11 (line 31), and 12 (line 5) – 13 (line 14), wherein the device has means for controlling an electrical image signal using the electronic measurement signal.

15. As for **Claim 6**, Lebens et al. disclose, as stated in column 14 (line 35) – 15 (line 12), wherein the device comprises at least one LED that is arranged to be used both for white balance adjustment and for exposure control.

16. As for **Claim 23 (22)** (please see objection above), Lebens et al. disclose, as shown in figures 5 – 7 and as stated in columns 5 (lines 52 – 67), 9 (lines 52 – 66), 11 (line 32) – 12 (line 24), and 15 (lines 21 – 32), comprising two LEDs one having a response to blue light and being arranged to generate an electronic measurement signal (via feedback circuit 160 – see

explanation below) representative of the intensity of a blue light component, the other having a response to red light and being arranged to generate an electronic measurement signal (via feedback circuit 160 – see explanation below) representative of the intensity of a red light component.

As stated in column 15 (lines 22 – 33), a plurality of LED colors are sequentially and separately pulsed and a single wide-spectrum feedback detector circuit is used to separately adjust each of the colors of output LED light. The Blue LED is in fact "arranged to generate an electronic measurement signal" via the feedback circuit 160. In other words, color balance is performed by an electronic signal generated by the feedback circuit 160 in response to the illumination arrangement of the Blue LED and likewise with the Red LED.

17. As for **Claim 24 (23)** (please see objection above), Lebens et al. disclose, as stated in columns 5 (lines 52 – 67), further comprising an LED with a responds to a light component (Red Light) whose intensity correlates with a total intensity of light (separately pulsed, e.g. red pulse corresponds to total intensity of light) and being arranged to generate an electronic measurement of the total intensity of light (via feedback circuit 160 – see below).

As stated in column 15 (lines 22 – 33), a plurality of LED colors are sequentially and separately pulsed and a single wide-spectrum feedback detector circuit is used to separately adjust each of the colors of output LED light. The Blue LED is in fact "arranged to generate an electronic measurement signal" via the feedback circuit 160. In other words, color balance is performed by an electronic signal generated by the feedback circuit 160 in response to the illumination arrangement of the Blue LED and likewise with the Red LED.

18. As for **Claim 25 (24)** (please see objection above), Lebens et al. disclose, as stated in column 5 (lines 52 – 67), wherein the LED has a response to green light.

19. As for **Claim 26 (25)** (please see objection above), Lebens et al. disclose, column 5 (lines 52 – 67), wherein said at least one LED ("red, green, and blue") is arranged to generate an electronic measurement signal representative of the intensity of a light component in a first frequency (via the "wide-spectrum frequency band feedback circuit 160") band and to radiate light in a second frequency band different from the first frequency band (red, green and blue).

As stated in column 15 (lines 22 – 33), a plurality of LED colors are sequentially and separately pulsed and a single wide-spectrum feedback detector circuit (for detecting the color spectrum) is used to separately adjust each of the colors of output LED light. The Blue LED is in fact "arranged to generate an electronic measurement signal" via the feedback circuit 160. In other words, color balance is performed by an electronic signal generated by the feedback circuit 160 in response to the illumination arrangement of the Blue LED and likewise with the Red LED and Greed LED.

20. As for **Claim 27 (26)** (please see objection above), Lebens et al. disclose, as stated in column 15 (lines 22 – 33), wherein said at least one LED is a discrete LED component ("separately pulsed").

21. As for **Claim 28 (27)** (please see objection above), Lebens et al. disclose, as shown in figure 10, wherein said at least one LED is part of an integrated circuit.

22. As for **Claim 29 (28)** (please see objection above), although not specifically recited in Lebens et al., it is inherent for said at least one LED to be integrated onto a printed circuit board.

23. For **Claim 7**, Lebens et al. disclose, as shown in figures 5 – 7 and as stated in columns 5 (lines 52 – 67), 9 (lines 52 – 66), 11 (line 32) – 12 (line 24), and 15 (lines 21 – 32), a recording device (video camera 500 – see figure 5) for recording an image in an electronic form including a white balance measurement unit (feedback circuit 160) for measuring the respective intensities of at least two light components ("color balance as measured by feedback circuit 160"), wherein said white balance measurement unit (160) comprises: 1. At least one LED (LED's 150) that has a response to a predetermined frequency band corresponding to one of said light components ("red, green, and blue") AND 2. Which is arranged to generate an electronic measurement signal representative of the intensity of said one of said light components (The "electronic measurement signal" is provided to the control circuit 134 from the feedback circuit 160 to maintain color balance – see figure 5).

24. As for **Claim 8**, Lebens et al. disclose, as shown in figure 10 and as stated in columns 9 (lines 52 – 66), and 14 (line 59) – 15 (line 12), wherein the recording device has means for adjusting balance of at least two color components of the captured electronic image on the basis of the measured intensity of illuminating light of at least two light components (image processor 15).

25. As for **Claim 9**, Lebens et al. disclose, as stated in columns 5 (lines 52 – 67), 9 (lines 24 – 30), 11 (lines 32 – 51), and 14 (lines 59 – 64), wherein said device is selected from the group consisting of: a digital camera, a video camera, a digital video camera, a TV-camera, and a mobile station.

26. As for **Claim 10**, Lebens et al. disclose, as stated in columns 9 (lines 24 – 51); 10 (line 65) – 11 (line 31); 12 (line 5) – 13 (line 14), and 14 (line 35) – 15 (line 12), that at least one LED

is arranged to generate an electronic measurement signal at a certain time and to generate light at another time.

27. For **Claim 12**, Lebens et al. disclose, as shown in figures 5 – 7 and as stated in columns 5 (lines 52 – 67), 9 (lines 52 – 66), 11 (line 32) – 12 (line 24), and 15 (lines 21 – 32), a method for white balance measurement comprising (feedback circuit 160) measuring the respective intensities of at least two light components ("color balance as measured by feedback circuit 160"), the method (160) comprising: 1. Measuring the intensity of at least one of said light components by using an LED (LED's 150) that has a response to a predetermined frequency band corresponding to one of said light components ("red, green, and blue") AND 2. Which is arranged to generate an electronic measurement signal representative of the intensity of said one of said light components (The "electronic measurement signal" is provided to the control circuit 134 from the feedback circuit 160 to maintain color balance – see figure 5).

28. For **Claim 13**, Lebens et al. disclose, as shown in figures 5 – 7 and as stated in columns 5 (lines 52 – 67), 9 (lines 52 – 66), 11 (line 32) – 12 (line 24), and 15 (lines 21 – 32), a method for white balance measurement comprising (feedback circuit 160)

recording an electronic image comprising at least two color components (see column 11 (lines 32 – 52);

measuring the respective intensities of at least two light components ("color balance as measured by feedback circuit 160"), and

adjusting the balance of said at least two color components of the electronic image on the basis of the measured intensities of said at least two light components (see column 11, line 52 – column 12, line 5);

the method (160) comprising: 1. Measuring the intensity of at least one of said light components by using an LED (LED's 150) that has a response to a predetermined frequency band corresponding to one of said light components ("red, green, and blue") AND 2. Which is arranged to generate an electronic measurement signal representative of the intensity of said one of said light components (The "electronic measurement signal" is provided to the control circuit 134 from the feedback circuit 160 to maintain color balance – see figure 5).

29. For **Claim 15**, Lebens et al. disclose, as shown in figures 5 – 11 and as stated in columns 5 (lines 52 – 67), 9 (lines 52 – 66), 11 (line 32) – 12 (line 24), and 15 (lines 21 – 32), a digital camera (500 is video camera for recording a digital video disk; hence a digital camera) including a white balance measurement unit (feedback circuit 160) for measuring the respective intensities of at least two light components ("color balance as measured by feedback circuit 160"), wherein said white balance measurement unit (160) comprises: 1. At least one LED (LED's 150) that has a response to a predetermined frequency band corresponding to one of said light components ("red, green, and blue") AND 2. Which is arranged to generate an electronic measurement signal representative of the intensity of said one of said light components (The "electronic measurement signal" is provided to the control circuit 134 from the feedback circuit 160 to maintain color balance – see figure 5).

30. For **Claim 16**, Lebens et al. disclose, as shown in figures 5 – 11 and as stated in columns 5 (lines 52 – 67), 9 (lines 52 – 66), 11 (line 32) – 12 (line 24), and 15 (lines 21 – 32), a video camera (500 is video camera for recording a digital video disk; hence a digital camera) including a white balance measurement unit (feedback circuit 160) for measuring the respective intensities of at least two light components ("color balance as measured by feedback circuit 160"), wherein

said white balance measurement unit (160) comprises: 1. At least one LED (LED's 150) that has a response to a predetermined frequency band corresponding to one of said light components ("red, green, and blue") AND 2. Which is arranged to generate an electronic measurement signal representative of the intensity of said one of said light components (The "electronic measurement signal" is provided to the control circuit 134 from the feedback circuit 160 to maintain color balance – see figure 5).

31. For **Claim 17**, Lebens et al. disclose, as shown in figures 5 – 11 and as stated in columns 5 (lines 52 – 67), 9 (lines 52 – 66), 11 (line 32) – 12 (line 24), and 15 (lines 21 – 32), a digital video camera (500 is video camera for recording a digital video disk; hence a digital camera) including a white balance measurement unit (feedback circuit 160) for measuring the respective intensities of at least two light components ("color balance as measured by feedback circuit 160"), wherein said white balance measurement unit (160) comprises: 1. At least one LED (LED's 150) that has a response to a predetermined frequency band corresponding to one of said light components ("red, green, and blue") AND 2. Which is arranged to generate an electronic measurement signal representative of the intensity of said one of said light components (The "electronic measurement signal" is provided to the control circuit 134 from the feedback circuit 160 to maintain color balance – see figure 5).

32. For **Claim 18**, Lebens et al. disclose, as shown in figures 5 – 11 and as stated in columns 5 (lines 52 – 67), 9 (lines 52 – 66), 11 (line 32) – 12 (line 24), and 15 (lines 21 – 32), a television camera (500 is video camera for recording a digital video disk; hence a digital camera) including a white balance measurement unit (feedback circuit 160) for measuring the respective intensities of at least two light components ("color balance as measured by feedback circuit 160"), wherein

said white balance measurement unit (160) comprises: 1. At least one LED (LED's 150) that has a response to a predetermined frequency band corresponding to one of said light components ("red, green, and blue") AND 2. Which is arranged to generate an electronic measurement signal representative of the intensity of said one of said light components (The "electronic measurement signal" is provided to the control circuit 134 from the feedback circuit 160 to maintain color balance – see figure 5).

33. For **Claim 19**, Lebens et al. disclose, as shown in figures 5 – 11 and as stated in columns 5 (lines 52 – 67), 9 (lines 52 – 66), 11 (line 32) – 12 (line 24), and 15 (lines 21 – 32), a mobile station (500 is a handheld video camera for recording a digital video disk; hence a digital camera) including a white balance measurement unit (feedback circuit 160) for measuring the respective intensities of at least two light components ("color balance as measured by feedback circuit 160"), wherein said white balance measurement unit (160) comprises: 1. At least one LED (LED's 150) that has a response to a predetermined frequency band corresponding to one of said light components ("red, green, and blue") AND 2. Which is arranged to generate an electronic measurement signal representative of the intensity of said one of said light components (The "electronic measurement signal" is provided to the control circuit 134 from the feedback circuit 160 to maintain color balance – see figure 5).

34. For **Claim 20**, the preamble recites "a mobile telephone"; however, as stated in the MPEP § 2111.02 (please see also Kropa v. Robie, 187 F.2d 150, 152, 88 USPQ 478, 481 – CCPA 1951), if the preamble of the claim neither recites the limitations of the claim nor is necessary to give life, meaning, and vitality to the claim; then the preamble of the claim is not served to further define the structure of the claim. Thus, in regards to Claim 20, the preamble of

the claim is not given any patentable weight since the preamble of the claim neither recites the limitations of the claim nor is necessary to give life, meaning, and vitality to the claim.

Lebens et al. disclose, as shown in figures 5 – 11 and as stated in columns 5 (lines 52 – 67), 9 (lines 52 – 66), 11 (line 32) – 12 (line 24), and 15 (lines 21 – 32), a white balance measurement unit (feedback circuit 160) for measuring the respective intensities of at least two light components ("color balance as measured by feedback circuit 160"), wherein said white balance measurement unit (160) comprises: 1. At least one LED (LED's 150) that has a response to a predetermined frequency band corresponding to one of said light components ("red, green, and blue") AND 2. Which is arranged to generate an electronic measurement signal representative of the intensity of said one of said light components (The "electronic measurement signal" is provided to the control circuit 134 from the feedback circuit 160 to maintain color balance – see figure 5).

Claim Rejections - 35 USC § 103

35. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

36. **Claim 11** is rejected under 35 U.S.C. 103(a) as being unpatentable over Lebens et al.

37. As for **Claim 11**, while Lebens et al. disclose said device is selected from the group consisting of: a digital camera, a video camera, a digital video camera, a TV-camera, and a mobile station; Lebens et al. does not disclose a mobile telephone.

However, **Official Notice** (MPEP § 2144.03) is taken that both the concepts and advantages of a camera and a mobile telephone integrated in a compact and hand-held device in order to transmit images and audio data wirelessly are well known and expected in the art. At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have a camera and a mobile telephone integrated in a compact and hand-held device in order to transmit images and audio data wirelessly for the advantage of providing permanent storage for captured images.

38. **Claims 21 and 22** is rejected under 35 U.S.C. 103(a) as being unpatentable over Lebens et al. in view of Dunsmore.

39. As for **Claim 21**, while Lebens et al. disclose at least one LED (LED's 150) that has a response to a predetermined frequency band corresponding to one of said light components ("red, green, and blue"); Lebens et al. does not disclose wherein said at least one LED is arranged to be reverse biased by the application of a voltage source and an electronic measurement signal is arranged to be generated by a current that flows in the LED when connected in reverse bias.

On the other hand, Dunsmore also disclose a camera and a LED source of illumination. More specifically, Dunsmore teach, as shown in figures 1 – 3 and as stated in column 3 (line 35) – 4 (line 20), a camera (10) including a photometric circuit (figures 1 – 3), wherein the photometric circuit comprises at least one LED (12) is arranged to be reverse biased by the application of a voltage source and an electronic measurement signal ("measure scene

illumination") is arranged to be generated by a current that flows in the LED when connected in reverse bias (specially see column 3, lines 52 – 67).

As stated in column 2 (lines 37 – 40) of Dunsmore, at the time the invention was made it would have been obvious to one with ordinary skill in the art to have included at least one LED arranged to be reverse biased by the application of a voltage source and an electronic measurement signal is arranged to be generated by a current that flows in the LED when connected in reverse bias, as taught by Dunsmore, in the white balance measuring unit, disclosed by Lebens et al., for the advantage of reducing the number of parts, the cost and the complexity of photographic cameras that include light emitting and light sensing functions.

40. As for **Claim 22 (21)**, while Lebens et al. disclose at least one LED (LED's 150) that has a response to a predetermined frequency band corresponding to one of said light components ("red, green, and blue"); Lebens et al. does not disclose wherein said at least one LED is connected in series with a resistor and arranged to be reverse biased by the application of a voltage source and an electronic measurement signal is arranged to be generated by a current that flows in the LED when connected in reverse bias.

On the other hand, Dunsmore also disclose a camera and a LED source of illumination. More specifically, Dunsmore teach, as shown in figures 1 – 3 and as stated in column 3 (line 35) – 4 (line 20), a camera (10) including a photometric circuit (figures 1 – 3), wherein the photometric circuit comprises at least one LED (12) is connected in series with a resistor (44) and arranged to be reverse biased by the application of a voltage source and an electronic measurement signal ("measure scene illumination") is arranged to be generated by a current that flows in the LED when connected in reverse bias (specially see column 3, lines 52 – 67).

As stated in column 2 (lines 37 – 40) of Dunsmore, at the time the invention was made it would have been obvious to one with ordinary skill in the art to have included at least one LED is connected in series with a resistor (44) and arranged to be reverse biased by the application of a voltage source and an electronic measurement signal is arranged to be generated by a current that flows in the LED when connected in reverse bias, as taught by Dunsmore, in the white balance measuring unit, disclosed by Lebens et al., for the advantage of reducing the number of parts, the cost and the complexity of photographic cameras that include light emitting and light sensing functions.

Conclusion

41. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

42. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Justin P Misleh whose telephone number is 571.272.7313. The

Examiner can normally be reached on Monday through Thursday from 7:30 AM to 5:00 PM and on alternating Fridays from 8:00 AM to 4:30 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Wendy R Garber can be reached on 571.272.7308. The fax phone number for the organization where this application or proceeding is assigned is 703.872.9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JPM
April 30, 2005

WENDY R. GARBER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600